



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica St. Louis

13715 Rider Trail North

Earth City, MO 63045

Tel: (314)298-8566

TestAmerica Job ID: 160-18172-1

TestAmerica Sample Delivery Group: SL2250

Client Project/Site: F13-002

For:

CH2M Hill Plateau Remediation Company
PO BOX 1600, MS H8-41
Richland, Washington 99352

Attn: Mr. Scot Fitzgerald

Authorized for release by:

7/28/2016 4:58:08 PM

Jayna Awalt, Project Manager II
(314)298-8566
jayna.awalt@testamericainc.com

LINKS

Review your project
results through

TotalAccess

Have a Question?

Ask
The
Expert

Visit us at:

www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Chain of Custody	6
Definitions/Glossary	10
Method Summary	11
Sample Summary	12
Client Sample Results	13
QC Sample Results	15
QC Association Summary	21
Surrogate Summary	23

Case Narrative

Client: CH2M Hill Plateau Remediation Company
 Project/Site: F13-002

TestAmerica Job ID: 160-18172-1
 SDG: SL2250

Job ID: 160-18172-1**Laboratory: TestAmerica St. Louis****Narrative****CASE NARRATIVE**

CH2MHill Plateau Remediation Company
 P.O. Box 1600
 Richland, Washington 99352
 July 28, 2016
 Attention: Scot Fitzgerald

SDG	:	SL2250
Number of Samples	:	2 samples
Sample Matrix	:	Water
Data Deliverable	:	Summary
Date SDG Closed	:	July 14, 2016

II. Introduction

On July 14, 2 samples were received by TestAmerica - St. Louis for chemical analysis. The samples were received within temperature criteria. See the COC and receipt checklists for documentation of any variations on receipt conditions and temperature. The following samples were received with insufficient preservation for TOC, both have a pH of ~ 7: B35K32 (160-18172-1) and B35JW2 (160-18172-2). Preservation was corrected upon receipt. Upon receipt, samples were given laboratory IDs to correspond with specific client IDs. Please refer to the Sample Summary sheets attached to this case narrative. This report is incomplete without the narrative.

The following SAFs are associated with this SDG: F13-002

III. Analytical Results/ Methodology

The analytical results for this report are presented by analytical test. Each set of data includes sample identification information, analytical results and the appropriate detection limits. All results are based upon samples as they were received, i.e. wet weight, unless otherwise noted on the data sheets. See the attached Methods Summary Form for the methods used in this SDG.

MS/MSD/Dup analysis was done per the client requirements. Analytical batches that did not contain matrix QC were analyzed with an LCS/LCS duplicate.

Note: For Metals analyses, per standard practice, all 6020 water and soil samples are initially prepared at 2x dilution. This standard dilution does not affect reporting limits as MDL studies are also prepared in the same manner. These dilutions do not necessitate flagging unless otherwise noted in the case narrative.

For solid matrices, all Metals analyses (including Hg) use a Standard Reference Material for the Laboratory Control Sample (LCS). Certificate for this source material may be obtained from TASL.

For Anion analysis, samples have been started at a 2x dilution per CHPRC direction. The samples are flagged accordingly with a "D" flag if sample concentration is above the MDL/RL. Non-conformance will be included in the below section only if dilution is greater than 2x.

For WTPH methods, the lab utilizes method 8015B. Per CHPRC direction, the method name in the electronic data has been modified to read WTPH in the place of 8015B.

Per CHPRC direction (June 2014), Boron will be reported for Metals using method 6010. Boron will no longer be reported by method 6020.

Per CHPRC direction, due to the short hold times for Nitrate, Nitrite and Phosphate by IC (48 hours) as well as pH analysis (24 hours), a SIR request is not needed when samples are run outside 1x hold but within 2x hold. A narrative comment will be included below if a sample is run outside the lab-specified hold time for waters.

Case Narrative

Client: CH2M Hill Plateau Remediation Company
 Project/Site: F13-002

TestAmerica Job ID: 160-18172-1
 SDG: SL2250

Job ID: 160-18172-1 (Continued)**Laboratory: TestAmerica St. Louis (Continued)**

For extractable and volatile organic analyses, several analytes are considered poor performers and will not meet CHPRC QC limits. Per CHPRC direction, the lab's statistical limits have been reported. Excursions outside these statistical limits will include a non-conformance in the sections below.

IV. Definitions

QCBLK-	Quality Control Blank, Method Blank
QCLCS-	Quality Control Laboratory Control Sample, Blank Spike
DUP-	Laboratory Duplicate
MS-	Matrix Spike
MSD-	Matrix Spike Duplicate

The term "Detection Limit" used in the analytical data report refers to either the lab's standard reporting limits or contractually required reporting limits, whichever is applicable.

The following data qualifiers may be applicable to the results in this report, as appropriate.

- **B** - For inorganic analyses, the sample result is greater than the MDL but less than the RL.
- **B** - For organic analyses, Method Blank contamination. The Method Blank contains the target analyte at a concentration above the MDL.
- **J** - For organic analyses, the sample is estimated and less than the RL.
- **C** - For inorganic analyses, Method Blank contamination. The Method Blank contains the target analyte at a concentration above the MDL.
- **D** - For all analyses, the sample result was obtained from the analysis of a dilution. For Metals analyses, per standard practice, all solid samples are initially prepared at a 2x dilution. This standard dilution does not affect reporting limits as MDL studies are also prepared in the same manner. These dilutions do not necessitate qualification unless otherwise noted in the case narrative.
- **N** - For inorganics and GC analyses, the spike/spike duplicate recoveries are outside QC limits.
- **T** - For GCMS analyses, the spike/spike duplicate recoveries are outside QC limits.
- **O** - For all analyses, the LCS (LCSD) recoveries are outside QC limits.
- **M** - For inorganic analyses, the precision was outside control limits.
- **P** - For organic analyses (PCB/Pests only), the aroclor target analyte has greater than 25% difference for detected concentrations between the two GC columns.

TOC**Batch: 261337**

The following sample in TOC batch 160-261337 was diluted to bring the concentration of the target analyte within the calibration range: B35JW2 (160-18172-2). An elevated reporting limit (RL) is provided. This analyte has been qualified accordingly with a "D" flag in the associated samples.

TIC**Batch: 262108**

The following samples in TIC batch 160-262108 were diluted to bring the concentrations of the target analyte within the calibration range: B35K32 (160-18172-1) and B35JW2 (160-18172-2). Elevated reporting limits (RLs) are provided. This analyte has been qualified accordingly with a "D" flag in the associated samples.

There were no observations or non-conformances associated with the following methods:

Volatiles
TDS

Case Narrative

Client: CH2M Hill Plateau Remediation Company
Project/Site: F13-002

TestAmerica Job ID: 160-18172-1
SDG: SL2250

Job ID: 160-18172-1 (Continued)**Laboratory: TestAmerica St. Louis (Continued)**

Alkalinity

Cyanide

We certify that this data package is in compliance with the SOW, both technically and for completeness, including a full description of, explanation of, and corrective actions for, any and all deviations, from either the analyses requested or the case narrative requested. Release of the data contained in this hard copy data package has been authorized by the Laboratory Analytical Manager or designee and the laboratory's client services representative as verified by their signature on this report.

Reviewed and approved:

Jayna Awalt
St. Louis Project Manager

Login Sample Receipt Checklist

Client: CH2M Hill Plateau Remediation Company

Job Number: 160-18172-1
SDG Number: SL2250**Login Number:** 18172**List Source:** TestAmerica St. Louis**List Number:** 1**Creator:** Clarke, Jill C**Question****Answer****Comment**

Radioactivity wasn't checked or is </= background as measured by a survey meter.

True

The cooler's custody seal, if present, is intact.

True

Sample custody seals, if present, are intact.

True

The cooler or samples do not appear to have been compromised or tampered with.

True

Samples were received on ice.

True

Cooler Temperature is acceptable.

True

Cooler Temperature is recorded.

True 0.2

COC is present.

True

COC is filled out in ink and legible.

True

COC is filled out with all pertinent information.

True

Is the Field Sampler's name present on COC?

True

There are no discrepancies between the containers received and the COC.

True

Samples are received within Holding Time (excluding tests with immediate HTs)

True

Sample containers have legible labels.

True

Containers are not broken or leaking.

True

Sample collection date/times are provided.

True

Appropriate sample containers are used.

True

Sample bottles are completely filled.

True

Sample Preservation Verified.

True

Refer to Job Narrative for details.

There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs

True

Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").

True

Multiphasic samples are not present.

True

Samples do not require splitting or compositing.

True

Residual Chlorine Checked.

N/A

CH2MHill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F13-002-2146		PAGE 1 OF 1	
COLLECTOR	Kevin Patterson CHPRC	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE	7C	DATA TURNAROUND	
SAMPLING LOCATION	299-F33-350, YEE9 Wk 8	PROJECT DESIGNATION	375-3922	SUMNER, LC	AIR QUALITY	<input type="checkbox"/>	15 Days / 15 Days	
ICE CHEST NO.	6WS-158	FIELD LOGBOOK NO.	HNEN-40115	ACTUAL SAMPLE DEPTH	COA	FEDERAL EXPRESS	ORIGINAL	
SHIPPED TO		OFFSITE PROPERTY NO.	N/A	BILL OF LADING/AIR BILL NO.				
TestAmerica St. Louis				770740025787				
POSSIBLE SAMPLE HAZARDS / REMARKS		PRESERVATION	Cool <=6C	HCl or H2SO4 to pH >2/ Cool	Cool <=6C	NaOH to pH >12/Cool		
*Contains Radioactive Material at concentrations that are not be regulated for transportation per 49 CFR/TAT/ Dangerous Goods Regulations but are not releasable per DOE Order 458.1. N/A		HOLDING TIME	28 Days	28 Days	7 Days	<6C	<6C.	
		TYPE OF CONTAINER	aG	aG	g/p	acs*	G/P	G/P
		NO. OF CONTAINER(S)	1	1	1	1	1	1
		VOLUME	60mL	60mL	125mL	40mL	60mL	60mL
SPECIAL HANDLING AND/OR STORAGE		SAMPLE ANALYSIS	9060-TOC: COMMON;	9060-LTDS: COMMON;	SEE ITEM (1) IN SPECIAL INSTRUCTIONS		3101.1 ALKALINITY: COMMON (Add-on); 9012. CYANIDE: COMMON;	
SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME				
SB35K32		WATER	JUL 13 2016	110				

CH2MHill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F13-002-20894	PAGE 1 OF 1
COLLECTOR	Kevin Patterson CHPRC	COMPANY CONTACT SUMNER, LC	TELEPHONE NO. 376-3922	PROJECT COORDINATOR SUMNER, LC	PRICE CODE 7C	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION	209-E33-344, YE28 WK 8	PROJECT DESIGNATION 200W Pump & Treat - Extraction Well Water Sampling		SAF NO. F13-002	AIR QUALITY <input type="checkbox"/>	15 Days / 15 Days
ICE CHEST NO.	6WS-158	FIELD LOGBOOK NO. HNF-N-49115	ACTUAL SAMPLE DEPTH N/A	COA 303111	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO	TestAmerica St. Louis	OFFSITE PROPERTY NO. N11A	BILL OF LADING/AIR BILL NO. 77607 40025787			

POSSIBLE SAMPLE HAZARDS/ REMARKS

*Contains Radioactive Material at concentrations that are not be regulated for transportation per 49 CFR/JATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1. N/A

A=Air
D=Drum
Liquids
DS=Drums
Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

SPECIAL HANDLING AND/OR STORAGE**MATRIX***

WATER

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME						
Page B35JW2	WATER	JUL 13 2016	1025	✓	✓	✓	✓	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS	
RELINQUISHED BY/REMOVED FROM Kevin Patterson CHPRC	JUL 13 2016 1025	RECEIVED BY/STORED IN FEDEX CHPRC	JUL 13 2016 1025	TRV-16-137	
RELINQUISHED BY/REMOVED FROM Janelle Zunker CHPRC	JUL 13 2016 1025	RECEIVED BY/STORED IN FEDEX	JUL 13 2016 1025	(1) 8260_VOA_GCMS: CH 01 {Chloromethane}; 8260_VOA_GCMS: COMMON {Carbon tetrachloride, Chloroform, Methylene chloride, Trichloroethene, Vinyl chloride}; 8260_VOA_GCMS: COMMON (Add-on); {cis-1,2-Dichloroethylene};	
RELINQUISHED BY/REMOVED FROM FEDEX	JUL 13 2016 1025	RECEIVED BY/STORED IN FEDEX	JUL 13 2016 1025		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
LABORATORY SECTION	RECEIVED BY			TITLE	
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD			DATE/TIME	

1	2	3	4	5	6	7	8	9	10
DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME
FSR ID = FSR32142					TRVL NUM = TRVL-16-137				
A-6003-618 (REV 2)									
PRINTED ON 5/5/2016	DISPOSED BY								



Shipping

Tracking

Manage

Learn

FedEx Office®

My Profile

Support

Locations

English

Search or tracking number

Sub

Login

IMPORTANT!

RNC and DNC may cause delays and disruptions in the Cleveland and Philadelphia metro areas. Learn More

FedEx® Tracking**776740025787**

Ship date:

Wed 7/13/2016

Actual delivery:

Thu 7/14/2016 9:10 am

RICHLAND, WA US

Delivered

Signed for by: R.CASTELLO

EARTH CITY, MO US

Travel History

Date/Time	Activity	Location
- 7/14/2016 - Thursday		
9:10 am	Delivered	EARTH CITY, MO
7:28 am	At local FedEx facility	EARTH CITY, MO
5:17 am	At destination sort facility	BERKELEY, MO
4:31 am	Departed FedEx location	MEMPHIS, TN
12:22 am	Arrived at FedEx location	MEMPHIS, TN
- 7/13/2016 - Wednesday		
4:50 pm	Left FedEx origin facility	PASCO, WA
4:22 pm	Shipment information sent to FedEx	PASCO, WA
3:21 pm	Picked up	PASCO, WA

Shipment Facts

Tracking number	776740025787	Service	FedEx Standard Overnight
Weight	73 lbs / 33.11 kgs	Dimensions	29x16x15 in.
Delivered To	Shipping/Receiving	Total pieces	1
Total shipment weight	73 lbs / 33.11 kgs	Terms	Recipient
Shipper reference	GWS-158	Packaging	Your Packaging
Special handling section	Deliver Weekday, Additional Handling Surcharge		



Search or tracking number Submit

Customer Focus
[New Customer Center](#)
[Small Business Center](#)
[Service Guide](#)
[Customer Support](#)

Company Information
[About FedEx](#)
[Careers](#)
[Investor Relations](#)
[Subscribe to FedEx email](#)

Featured Services
[FedEx Delivery Manager](#)
[FedEx SameDay](#)
[FedEx Home Delivery](#)
[FedEx TechConnect](#)
[Healthcare Solutions](#)
[Online Retail Solutions](#)
[Packaging Services](#)
[Ancillary Clearance Services](#)

Other Resources
[FedEx Compatible](#)
[Developer Resource Center](#)
[FedEx Ship Manager Software](#)
[FedEx Mobile](#)

Companies
[FedEx Express](#)
[FedEx Ground](#)
[FedEx Office](#)
[FedEx Freight](#)
[FedEx Custom Critical](#)
[FedEx Trade Networks](#)
[FedEx CrossBorder](#)
[FedEx SupplyChain](#)

Follow FedEx

United States - English

Definitions/Glossary

Client: CH2M Hill Plateau Remediation Company
 Project/Site: F13-002

TestAmerica Job ID: 160-18172-1
 SDG: SL2250

Qualifiers**GC/MS VOA**

Qualifier	Qualifier Description
U	Analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
N	Presumptive evidence of material.

General Chemistry

Qualifier	Qualifier Description
U	Analyzed for but not detected.
D	The reported value is from a dilution.

Glossary**Abbreviation** **These commonly used abbreviations may or may not be present in this report.**

□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Method Summary

Client: CH2M Hill Plateau Remediation Company
 Project/Site: F13-002

TestAmerica Job ID: 160-18172-1
 SDG: SL2250

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds (GC/MS)	SW846	TAL SL
160.1	Solids, Total Dissolved (TDS)	MCAWW	TAL SL
310.1	Alkalinity	MCAWW	TAL SL
9012B	Cyanide, Total andor Amenable	SW846	TAL SL
9060	Organic Carbon, Total (TOC)	SW846	TAL SL
9060	Carbon, Total and Total Inorganic	SW846	TAL SL

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
 SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

1

2

3

4

5

6

7

8

9

10

11

7/28/2016

Sample Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: F13-002

TestAmerica Job ID: 160-18172-1
SDG: SL2250

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
160-18172-1	B35K32	Water	07/13/16 11:10	07/14/16 09:20
160-18172-2	B35JW2	Water	07/13/16 10:25	07/14/16 09:20

1

2

3

4

5

6

7

8

9

10

11

TestAmerica St. Louis

Client Sample Results

Client: CH2M Hill Plateau Remediation Company
 Project/Site: F13-002

TestAmerica Job ID: 160-18172-1
 SDG: SL2250

Method: 8260C - Volatile Organic Compounds (GC/MS)**Client Sample ID: B35K32****Date Collected: 07/13/16 11:10****Date Received: 07/14/16 09:20****Lab Sample ID: 160-18172-1**
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon tetrachloride	0.18	U	1.0	0.18	ug/L			07/19/16 13:08	1
Chloroform	0.32	J	1.0	0.10	ug/L			07/19/16 13:08	1
Chloromethane	0.10	U	2.0	0.10	ug/L			07/19/16 13:08	1
cis-1,2-Dichloroethylene	0.10	U	1.0	0.10	ug/L			07/19/16 13:08	1
Methylene Chloride	0.27	U	1.0	0.27	ug/L			07/19/16 13:08	1
Trichloroethene	0.25	U	1.0	0.25	ug/L			07/19/16 13:08	1
Vinyl chloride	0.19	U	2.0	0.19	ug/L			07/19/16 13:08	1
Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Methane, chlorodifluoro-	3.2	N J	ug/L		3.07	75-45-6		07/19/16 13:08	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		81 - 130					07/19/16 13:08	1
Dibromofluoromethane (Surr)	102		81 - 124					07/19/16 13:08	1
1,2-Dichloroethane-d4 (Surr)	100		75 - 129					07/19/16 13:08	1
Toluene-d8 (Surr)	104		87 - 128					07/19/16 13:08	1

Client Sample ID: B35JW2**Date Collected: 07/13/16 10:25****Date Received: 07/14/16 09:20****Lab Sample ID: 160-18172-2**
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon tetrachloride	0.18	U	1.0	0.18	ug/L			07/19/16 13:32	1
Chloroform	0.23	J	1.0	0.10	ug/L			07/19/16 13:32	1
Chloromethane	0.10	U	2.0	0.10	ug/L			07/19/16 13:32	1
cis-1,2-Dichloroethylene	0.10	U	1.0	0.10	ug/L			07/19/16 13:32	1
Methylene Chloride	0.27	U	1.0	0.27	ug/L			07/19/16 13:32	1
Trichloroethene	0.25	U	1.0	0.25	ug/L			07/19/16 13:32	1
Vinyl chloride	0.19	U	2.0	0.19	ug/L			07/19/16 13:32	1
Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Methane, chlorodifluoro-	4.0	N J	ug/L		3.08	75-45-6		07/19/16 13:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	119		81 - 130					07/19/16 13:32	1
Dibromofluoromethane (Surr)	95		81 - 124					07/19/16 13:32	1
1,2-Dichloroethane-d4 (Surr)	92		75 - 129					07/19/16 13:32	1
Toluene-d8 (Surr)	110		87 - 128					07/19/16 13:32	1

General Chemistry**Client Sample ID: B35K32****Date Collected: 07/13/16 11:10****Date Received: 07/14/16 09:20****Lab Sample ID: 160-18172-1**
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (TDS)	2970		10.0	7.0	mg/L			07/15/16 09:29	1
Bicarbonate Alkalinity as CaCO₃	341		5.0	0.54	mg/L			07/21/16 10:10	1
Carbonate Alkalinity as CaCO ₃	0.54	U	5.0	0.54	mg/L			07/21/16 10:10	1
Hydroxide Alkalinity	0.54	U	5.0	0.54	mg/L			07/21/16 10:10	1
Cyanide, Total	3.1	U	10.0	3.1	ug/L		07/22/16 17:30	07/22/16 21:08	1
Total Organic Carbon	5.1		1.0	0.72	mg/L			07/19/16 00:08	1

TestAmerica St. Louis

Client Sample Results

Client: CH2M Hill Plateau Remediation Company
 Project/Site: F13-002

TestAmerica Job ID: 160-18172-1
 SDG: SL2250

General Chemistry**Client Sample ID: B35JW2****Date Collected: 07/13/16 10:25****Date Received: 07/14/16 09:20****Lab Sample ID: 160-18172-2**
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (TDS)	1980		10.0	7.0	mg/L			07/15/16 09:29	1
Bicarbonate Alkalinity as CaCO ₃	305		5.0	0.54	mg/L			07/21/16 10:10	1
Carbonate Alkalinity as CaCO ₃	0.54	U	5.0	0.54	mg/L			07/21/16 10:10	1
Hydroxide Alkalinity	0.54	U	5.0	0.54	mg/L			07/21/16 10:10	1
Cyanide, Total	3.1	U	10.0	3.1	ug/L		07/22/16 17:30	07/22/16 21:11	1

General Chemistry - DL**Client Sample ID: B35K32****Date Collected: 07/13/16 11:10****Date Received: 07/14/16 09:20****Lab Sample ID: 160-18172-1**
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Inorganic Carbon	52.2	D	10.0	2.2	mg/L			07/26/16 12:44	10

Client Sample ID: B35JW2**Date Collected: 07/13/16 10:25****Date Received: 07/14/16 09:20****Lab Sample ID: 160-18172-2**
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Inorganic Carbon	45.4	D	10.0	2.2	mg/L			07/26/16 13:47	10
Total Organic Carbon	24.1	D	2.0	1.4	mg/L			07/19/16 17:06	2

QC Sample Results

Client: CH2M Hill Plateau Remediation Company
 Project/Site: F13-002

TestAmerica Job ID: 160-18172-1
 SDG: SL2250

Method: 8260C - Volatile Organic Compounds (GC/MS)**Lab Sample ID: MB 160-261033/9****Matrix: Water****Analysis Batch: 261033**

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Carbon tetrachloride	0.18	U	1.0	0.18	ug/L			07/19/16 08:49	1
Chloroform	0.10	U	1.0	0.10	ug/L			07/19/16 08:49	1
Chloromethane	0.10	U	2.0	0.10	ug/L			07/19/16 08:49	1
cis-1,2-Dichloroethylene	0.10	U	1.0	0.10	ug/L			07/19/16 08:49	1
Methylene Chloride	0.27	U	1.0	0.27	ug/L			07/19/16 08:49	1
Trichloroethene	0.25	U	1.0	0.25	ug/L			07/19/16 08:49	1
Vinyl chloride	0.19	U	2.0	0.19	ug/L			07/19/16 08:49	1

Tentatively Identified Compound	MB	MB	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
	Est. Result	Qualifier							
Tentatively Identified Compound	None		ug/L					07/19/16 08:49	1

Surrogate	MB	MB	Limits	D	%Rec	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier						
4-Bromofluorobenzene (Surr)	113		81 - 130				07/19/16 08:49	1
Dibromofluoromethane (Surr)	99		81 - 124				07/19/16 08:49	1
1,2-Dichloroethane-d4 (Surr)	94		75 - 129				07/19/16 08:49	1
Toluene-d8 (Surr)	110		87 - 128				07/19/16 08:49	1

Lab Sample ID: LCS 160-261033/6**Matrix: Water****Analysis Batch: 261033**

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike	LCS	LCS	Unit	D	%Rec	Prepared	Analyzed	Dil Fac
	Added	Result	Qualifier						
Carbon tetrachloride	10.0	10.7		ug/L		107		83 - 125	
Chloroform	10.0	10.3		ug/L		103		80 - 120	
Chloromethane	10.0	10.5		ug/L		105		72 - 124	
cis-1,2-Dichloroethylene	10.0	9.79		ug/L		98		80 - 120	
Methylene Chloride	10.0	9.71		ug/L		97		80 - 120	
Trichloroethene	10.0	10.2		ug/L		102		80 - 120	
Vinyl chloride	10.0	10.7		ug/L		107		77 - 122	

Surrogate	LCS	LCS	Limits	D	%Rec
	%Recovery	Qualifier			
4-Bromofluorobenzene (Surr)	104		81 - 130		
Dibromofluoromethane (Surr)	99		81 - 124		
1,2-Dichloroethane-d4 (Surr)	92		75 - 129		
Toluene-d8 (Surr)	104		87 - 128		

Lab Sample ID: LCSD 160-261033/7**Matrix: Water****Analysis Batch: 261033**

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	Prepared	Analyzed	RPD	Limit
	Added	Result	Qualifier							
Carbon tetrachloride	10.0	11.1		ug/L		111		83 - 125	4	20
Chloroform	10.0	10.4		ug/L		104		80 - 120	0	20
Chloromethane	10.0	10.9		ug/L		109		72 - 124	4	20
cis-1,2-Dichloroethylene	10.0	9.90		ug/L		99		80 - 120	1	20
Methylene Chloride	10.0	10.1		ug/L		101		80 - 120	4	20
Trichloroethene	10.0	10.8		ug/L		108		80 - 120	6	20

TestAmerica St. Louis

QC Sample Results

Client: CH2M Hill Plateau Remediation Company
 Project/Site: F13-002

TestAmerica Job ID: 160-18172-1
 SDG: SL2250

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)**Lab Sample ID: LCSD 160-261033/7****Matrix: Water****Analysis Batch: 261033****Client Sample ID: Lab Control Sample Dup**
Prep Type: Total/NA

Analyte		Spike	LCSD	LCSD	Unit	D	%Rec	%Rec.	RPD	RPD	Limit
		Added	Result	Qualifier				ug/L			
Vinyl chloride		10.0	10.9				109	77 - 122	2	20	
Surrogate											
4-Bromofluorobenzene (Surr)	105			81 - 130							
Dibromofluoromethane (Surr)	100			81 - 124							
1,2-Dichloroethane-d4 (Surr)	89			75 - 129							
Toluene-d8 (Surr)	102			87 - 128							

Lab Sample ID: 160-18131-B-3 MS**Matrix: Water****Analysis Batch: 261033****Client Sample ID: Matrix Spike**
Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits		
Carbon tetrachloride	4.1		10.0	13.0		ug/L		89	77 - 131		
Chloroform	0.24	J	10.0	9.95		ug/L		97	80 - 120		
Chloromethane	0.10	U	10.0	9.91		ug/L		99	62 - 132		
cis-1,2-Dichloroethylene	0.10	U	10.0	9.67		ug/L		97	80 - 120		
Methylene Chloride	0.27	U	10.0	9.60		ug/L		96	80 - 120		
Trichloroethene	0.25	U	10.0	9.33		ug/L		93	81 - 125		
Vinyl chloride	0.19	U	10.0	9.19		ug/L		92	70 - 129		
Surrogate											
4-Bromofluorobenzene (Surr)	99			81 - 130							
Dibromofluoromethane (Surr)	97			81 - 124							
1,2-Dichloroethane-d4 (Surr)	93			75 - 129							
Toluene-d8 (Surr)	103			87 - 128							

Lab Sample ID: 160-18131-C-3 MSD**Matrix: Water****Analysis Batch: 261033****Client Sample ID: Matrix Spike Duplicate**
Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits		
Carbon tetrachloride	4.1		10.0	14.9		ug/L		108	77 - 131	14	20
Chloroform	0.24	J	10.0	11.0		ug/L		108	80 - 120	10	20
Chloromethane	0.10	U	10.0	10.6		ug/L		106	62 - 132	6	20
cis-1,2-Dichloroethylene	0.10	U	10.0	10.4		ug/L		104	80 - 120	8	20
Methylene Chloride	0.27	U	10.0	10.5		ug/L		105	80 - 120	9	20
Trichloroethene	0.25	U	10.0	10.1		ug/L		101	81 - 125	8	20
Vinyl chloride	0.19	U	10.0	10.1		ug/L		101	70 - 129	9	20
Surrogate											
4-Bromofluorobenzene (Surr)	106			81 - 130							
Dibromofluoromethane (Surr)	107			81 - 124							
1,2-Dichloroethane-d4 (Surr)	97			75 - 129							
Toluene-d8 (Surr)	107			87 - 128							

QC Sample Results

Client: CH2M Hill Plateau Remediation Company
 Project/Site: F13-002

TestAmerica Job ID: 160-18172-1
 SDG: SL2250

Method: 160.1 - Solids, Total Dissolved (TDS)**Lab Sample ID: MB 160-260687/1****Matrix: Water****Analysis Batch: 260687**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (TDS)	3.5	U	5.0	3.5	mg/L			07/15/16 09:29	1

Lab Sample ID: LCS 160-260687/2**Matrix: Water****Analysis Batch: 260687**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec.	Limits
Total Dissolved Solids (TDS)	500	498.0		mg/L		100	90 - 110

Lab Sample ID: 160-18172-1 DU**Matrix: Water****Analysis Batch: 260687**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Dissolved Solids (TDS)	2970		2944		mg/L		0.8	20

Method: 310.1 - Alkalinity**Lab Sample ID: MB 160-261520/1****Matrix: Water****Analysis Batch: 261520**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO ₃	0.54	U	5.0	0.54	mg/L			07/21/16 10:10	1
Carbonate Alkalinity as CaCO ₃	0.54	U	5.0	0.54	mg/L			07/21/16 10:10	1
Hydroxide Alkalinity	0.54	U	5.0	0.54	mg/L			07/21/16 10:10	1

Lab Sample ID: HLCS 160-261520/3**Matrix: Water****Analysis Batch: 261520**

Analyte	Spike Added	HLCS Result	HLCS Qualifier	Unit	D	%Rec.	Limits
Bicarbonate Alkalinity as CaCO ₃	400	380.0		mg/L		95	90 - 110

Lab Sample ID: LCS 160-261520/2**Matrix: Water****Analysis Batch: 261520**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec.	Limits
Bicarbonate Alkalinity as CaCO ₃	200	188.5		mg/L		94	90 - 110

Lab Sample ID: 160-18173-A-1 MS**Matrix: Water****Analysis Batch: 261520**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec.	Limits
Bicarbonate Alkalinity as CaCO ₃	67.9		100	158.0		mg/L		90	80 - 120

TestAmerica St. Louis

QC Sample Results

Client: CH2M Hill Plateau Remediation Company
 Project/Site: F13-002

TestAmerica Job ID: 160-18172-1
 SDG: SL2250

Method: 310.1 - Alkalinity (Continued)**Lab Sample ID: 160-18173-A-1 DU****Matrix: Water****Analysis Batch: 261520****Client Sample ID: Duplicate
Prep Type: Total/NA**

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Bicarbonate Alkalinity as CaCO ₃	67.9		69.50		mg/L		2	20
Carbonate Alkalinity as CaCO ₃	0.54	U	0.54	U	mg/L		NC	20
Hydroxide Alkalinity	0.54	U	0.54	U	mg/L		NC	20

Method: 9012B - Cyanide, Total andor Amenable**Lab Sample ID: MB 160-261760/1-A****Matrix: Water****Analysis Batch: 261825****Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 261760**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Cyanide, Total	3.1	U	10.0	3.1	ug/L		07/22/16 17:30	07/22/16 20:27	1

Lab Sample ID: HLCs 160-261760/3-A**Matrix: Water****Analysis Batch: 261825****Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 261760**

Analyte	Spike	HLCS	HLCS	Unit	D	%Rec.	Limits
	Added	Result	Qualifier				
Cyanide, Total	400	393.3		ug/L		98	85 - 115

Lab Sample ID: LCS 160-261760/2-A**Matrix: Water****Analysis Batch: 261825****Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 261760**

Analyte	Spike	LCS	LCS	Unit	D	%Rec.	Limits
	Added	Result	Qualifier				
Cyanide, Total	200	170.8		ug/L		85	85 - 115

Lab Sample ID: 160-18131-A-1-C MS**Matrix: Water****Analysis Batch: 261825****Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 261760**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec.	Limits
	Result	Qualifier	Added	Result	Qualifier				
Cyanide, Total	3.1	U	200	190.1		ug/L		95	66 - 120

Lab Sample ID: 160-18131-A-1-B DU**Matrix: Water****Analysis Batch: 261825****Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 261760**

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Cyanide, Total	3.1	U	3.1	U	ug/L		NC	20

Method: 9060 - Organic Carbon, Total (TOC)**Lab Sample ID: MB 160-261135/36****Matrix: Water****Analysis Batch: 261135****Client Sample ID: Method Blank
Prep Type: Total/NA**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Total Organic Carbon	0.72	U	1.0	0.72	mg/L			07/18/16 23:33	1

TestAmerica St. Louis

QC Sample Results

Client: CH2M Hill Plateau Remediation Company
 Project/Site: F13-002

TestAmerica Job ID: 160-18172-1
 SDG: SL2250

Lab Sample ID: LCS 160-261135/37**Matrix: Water****Analysis Batch: 261135**

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	10.0	9.68		mg/L	97		90 - 110

Lab Sample ID: 160-18172-1 MS**Matrix: Water****Analysis Batch: 261135**

Client Sample ID: B35K32
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	5.1		5.00	9.45		mg/L	88		76 - 120

Lab Sample ID: 160-18172-1 DU**Matrix: Water****Analysis Batch: 261135**

Client Sample ID: B35K32
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Organic Carbon	5.1			5.17		mg/L		2	20

Lab Sample ID: MB 160-261337/4**Matrix: Water****Analysis Batch: 261337**

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	0.72	U		1.0	0.72	mg/L			07/19/16 16:07	1

Lab Sample ID: LCS 160-261337/5**Matrix: Water****Analysis Batch: 261337**

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	10.0	9.85		mg/L	99		90 - 110

Method: 9060 - Organic Carbon, Total (TOC) - DL**Lab Sample ID: 160-18172-2 MS****Matrix: Water****Analysis Batch: 261337**

Client Sample ID: B35JW2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon - DL	24.1	D	10.0	33.55	D	mg/L	95		76 - 120

Lab Sample ID: 160-18172-2 DU**Matrix: Water****Analysis Batch: 261337**

Client Sample ID: B35JW2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Organic Carbon - DL	24.1	D		24.06	D	mg/L		0.06	20

TestAmerica St. Louis

QC Sample Results

Client: CH2M Hill Plateau Remediation Company
 Project/Site: F13-002

TestAmerica Job ID: 160-18172-1
 SDG: SL2250

Method: 9060 - Carbon, Total and Total Inorganic

Lab Sample ID: MB 160-262108/4

Matrix: Water

Analysis Batch: 262108

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Inorganic Carbon	0.22	U	1.0	0.22	mg/L			07/26/16 12:02	1

Lab Sample ID: LCS 160-262108/5

Matrix: Water

Analysis Batch: 262108

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec.	Limits
Total Inorganic Carbon		10.0	9.51	mg/L		95	85 - 129

Method: 9060 - Carbon, Total and Total Inorganic - DL

Lab Sample ID: 160-18172-1 MS

Matrix: Water

Analysis Batch: 262108

Client Sample ID: B35K32
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec.	Limits
Total Inorganic Carbon - DL	52.2	D	50.1	106.6	D	mg/L		109	76 - 120

Lab Sample ID: 160-18172-1 DU

Matrix: Water

Analysis Batch: 262108

Client Sample ID: B35K32
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Inorganic Carbon - DL	52.2	D	52.21	D	mg/L		0.07	20

QC Association Summary

Client: CH2M Hill Plateau Remediation Company
 Project/Site: F13-002

TestAmerica Job ID: 160-18172-1
 SDG: SL2250

GC/MS VOA**Analysis Batch: 261033**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-18172-1	B35K32	Total/NA	Water	8260C	
160-18172-2	B35JW2	Total/NA	Water	8260C	
MB 160-261033/9	Method Blank	Total/NA	Water	8260C	
LCS 160-261033/6	Lab Control Sample	Total/NA	Water	8260C	
LCSD 160-261033/7	Lab Control Sample Dup	Total/NA	Water	8260C	
160-18131-B-3 MS	Matrix Spike	Total/NA	Water	8260C	
160-18131-C-3 MSD	Matrix Spike Duplicate	Total/NA	Water	8260C	

General Chemistry**Analysis Batch: 260687**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-18172-1	B35K32	Total/NA	Water	160.1	
160-18172-2	B35JW2	Total/NA	Water	160.1	
MB 160-260687/1	Method Blank	Total/NA	Water	160.1	
LCS 160-260687/2	Lab Control Sample	Total/NA	Water	160.1	
160-18172-1 DU	B35K32	Total/NA	Water	160.1	

Analysis Batch: 261135

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-18172-1	B35K32	Total/NA	Water	9060	
MB 160-261135/36	Method Blank	Total/NA	Water	9060	
LCS 160-261135/37	Lab Control Sample	Total/NA	Water	9060	
160-18172-1 MS	B35K32	Total/NA	Water	9060	
160-18172-1 DU	B35K32	Total/NA	Water	9060	

Analysis Batch: 261337

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-18172-2 - DL	B35JW2	Total/NA	Water	9060	
MB 160-261337/4	Method Blank	Total/NA	Water	9060	
LCS 160-261337/5	Lab Control Sample	Total/NA	Water	9060	
160-18172-2 MS - DL	B35JW2	Total/NA	Water	9060	
160-18172-2 DU - DL	B35JW2	Total/NA	Water	9060	

Analysis Batch: 261520

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-18172-1	B35K32	Total/NA	Water	310.1	
160-18172-2	B35JW2	Total/NA	Water	310.1	
MB 160-261520/1	Method Blank	Total/NA	Water	310.1	
HLCS 160-261520/3	Lab Control Sample	Total/NA	Water	310.1	
LCS 160-261520/2	Lab Control Sample	Total/NA	Water	310.1	
160-18173-A-1 MS	Matrix Spike	Total/NA	Water	310.1	
160-18173-A-1 DU	Duplicate	Total/NA	Water	310.1	

Prep Batch: 261760

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-18172-1	B35K32	Total/NA	Water	9010C	
160-18172-2	B35JW2	Total/NA	Water	9010C	
MB 160-261760/1-A	Method Blank	Total/NA	Water	9010C	
HLCS 160-261760/3-A	Lab Control Sample	Total/NA	Water	9010C	

TestAmerica St. Louis

QC Association Summary

Client: CH2M Hill Plateau Remediation Company
 Project/Site: F13-002

TestAmerica Job ID: 160-18172-1
 SDG: SL2250

General Chemistry (Continued)**Prep Batch: 261760 (Continued)**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 160-261760/2-A	Lab Control Sample	Total/NA	Water	9010C	
160-18131-A-1-C MS	Matrix Spike	Total/NA	Water	9010C	
160-18131-A-1-B DU	Duplicate	Total/NA	Water	9010C	

Analysis Batch: 261825

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-18172-1	B35K32	Total/NA	Water	9012B	261760
160-18172-2	B35JW2	Total/NA	Water	9012B	261760
MB 160-261760/1-A	Method Blank	Total/NA	Water	9012B	261760
HLCS 160-261760/3-A	Lab Control Sample	Total/NA	Water	9012B	261760
LCS 160-261760/2-A	Lab Control Sample	Total/NA	Water	9012B	261760
160-18131-A-1-C MS	Matrix Spike	Total/NA	Water	9012B	261760
160-18131-A-1-B DU	Duplicate	Total/NA	Water	9012B	261760

Analysis Batch: 262108

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-18172-1 - DL	B35K32	Total/NA	Water	9060	
160-18172-2 - DL	B35JW2	Total/NA	Water	9060	
MB 160-262108/4	Method Blank	Total/NA	Water	9060	
LCS 160-262108/5	Lab Control Sample	Total/NA	Water	9060	
160-18172-1 MS - DL	B35K32	Total/NA	Water	9060	
160-18172-1 DU - DL	B35K32	Total/NA	Water	9060	

Surrogate Summary

Client: CH2M Hill Plateau Remediation Company
 Project/Site: F13-002

TestAmerica Job ID: 160-18172-1
 SDG: SL2250

Method: 8260C - Volatile Organic Compounds (GC/MS)**Matrix: Water****Prep Type: Total/NA**

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (81-130)	DBFM (81-124)	12DCE (75-129)	TOL (87-128)
160-18131-B-3 MS	Matrix Spike	99	97	93	103
160-18131-C-3 MSD	Matrix Spike Duplicate	106	107	97	107
160-18172-1	B35K32	109	102	100	104
160-18172-2	B35JW2	119	95	92	110
LCS 160-261033/6	Lab Control Sample	104	99	92	104
LCSD 160-261033/7	Lab Control Sample Dup	105	100	89	102
MB 160-261033/9	Method Blank	113	99	94	110

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

12DCE = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)